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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/549,827 | 04/14/2000 | Andrey Rzhetsky | A31869-A70050.1046 | 8497 |

7590 04/15/2003
Baker Botts L.L.P.
30 Rockefeller Plaza
New York, NY 10112

EXAMINER

ZHOU, SHUBO

ART UNIT PAPER NUMBER

1631

DATE MAILED: 04/15/2003

19

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/549,827

Applicant(s)

RZHETSKY ET AL.

Examiner

Shubo "Joe" Zhou

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/8/02 and 2/3/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 and 22-32 is/are withdrawn from consideration.

- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 July 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's amendment and request for reconsideration in Paper #15 and Paper #18, filed on 7/8/02 and 2/3/03, are acknowledged and the amendments entered.

Currently, claims 1-32 are pending, and 11-21 are under consideration by the Examiner.

Applicant's arguments in response to the previous Office Action of 12/28/02 have been fully considered but they are not deemed to be persuasive. Rejections and/or objections not reiterated from previous Office action are hereby withdrawn. The following rejections and/or objections are either reiterated from the previous Office action(s) or newly added, and constitute the complete set presently being applied to the instant application.

This application contains claims 1-10, and 22-32 drawn to inventions non-elected with traverse in Paper No. 7. A complete reply to the final rejection must include cancellation of the non-elected claims or other appropriate action (37 CFR 1.144). See MPEP § 821.01.

Priority

It was brought to applicants' attention that for the purpose of examination, priority had not been granted to the claimed provisional application 60/129,469 and non-provisional application 09/327,983 because the instantly elected invention was not found to have been disclosed in the applications. In reply, applicants did not oppose to the examiner's decision. It is the examiner's understanding that applicants agreed. Confusingly, in the reply, applicants also referred to the application 09/327,938 and claimed priority to the application. It is determined that none of the inventors of the instant application is also inventor of application 09/327,938. Thus, priority claim to the application is not granted.

Claim Rejections-35 USC § 112

The following is a quotation of the **second** paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11-21 are rejected under 35 U.S.C. 112 , second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 11, 19, and 21 are amended to be drawn to methods of extracting information on interactions between biological entities from natural-language genomics text data, however, the method steps do not ended in extracting any interactions between the entities from the natural language genomics text data. It is unclear whether or what other steps are needed to achieve the purpose of extracting.

Claims 12-18, and 19-20 are rejected due to their dependencies from claims 11 and 19 respectively.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 11-21 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-2, 5, and 9-16, respectively of U.S.

Patent No. 6,182,029.

An obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but an examined application claim is not patentably distinct from the reference claims because the examined claim is either anticipated by, or would have been obvious over, the reference claims. See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985). Although the conflicting claims are not identical, they are not patentably distinct from each other. Claims 11-21 of the instant application and claims 1-2, 5, and 9-16 of US 6,182,029 are both directed to methods of extracting information from natural-language text data. The claims differ in that claims 11-21 of the instant application recite natural-language genomics text data whereas claims 1-2, 5, and 9-16 of US 6,182,029 recite just natural-language text data, generic to genomics text data. In supporting the genus claim, the portion of the specification of US 6,182,029 discloses methods of extracting information from natural-language medical data (column 15) and genomics text data (column 16). The

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specification further provides example of a lexcon for genomics and an example of a grammar for use with genomics literature. Thus, claims 11-21 cannot be considered patentably distinct over claims 1-2, 5, and 9-16 of US 6,182,029 when there is a specifically recited embodiment (the genomics text data) that would anticipate claim 11-21. Alternatively, claims 11-21 cannot be considered patentably distinct over claims 1-2, 5, and 9-16 of US 6,182,029 when there is a specifically disclosed embodiment in 6,182,029 that supports claims 1-2, 5, and 9-16 of the patent and falls within the scope of claim 11-21 herein because it would have been obvious to one having ordinary skill in the art to modify the method of claims 1-2, 5, and 9-16 of US 6,182,029 by selecting a specifically disclosed embodiment that supports those claims, i.e. the genomics text data embodiment disclosed in 6,182,029. One having ordinary skill in the art would have been motivated to do this because that embodiment is disclosed as being a preferred embodiment within claims 1-2, 5, and 9-16.

Claim Rejections-35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 11-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedman C. (US patent No. 6,182,029, Date of Patent: Jan. 30, 2001, Filed: Aug. 6, 1999).

This rejection is reiterated from the previous Office action and maintained for reasons of record.

Applicants argue that the instant claims are amended to directed to extracting information on interactions between biological entities from genomics text data, and that it would not be obvious that the methods disclosed in Friedman could be for genomics data. This is not found persuasive.

As set forth in the previous Office action mailed 12/28/02 on page 9-10, Friedman suggests/motivates application of the natural language text data extraction method in “extracting medical/clinical data from physician reports and genomics-related information from electronic text records” (column 4). Friedman actually uses such entities in a text as “proteins”, “genes” and “activate” as examples to demonstrate how parsing works (column 6). Further, Friedman provides example of a lexicon for genomics and an example of a grammar for use with genomics literature. Thus, it would have been obvious to one having ordinary skill in the art at the time the claimed invention was made to apply Friedman’s method to genomics text data and there would be a reasonable expectation of success because identifying biological entities such as “proteins”, “genes” and “activate” in parsing is actually taught or suggested by Friedman, and example of a

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lexcon for genomics and an example of a grammar for use with genomics literature are provided therein .

Note that while the preambles of the instant claims recite “extracting information on interactions between biological entities from natural-language genomics text data”, as set forth above, the method steps do not end in extracting any interactions between the entities from the natural language genomics text data. Thus, the limitation “information on interactions” do not bear weight in patentability consideration.

Conclusion

No claim is allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the PTO Fax Center located

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in Crystal Mall 1. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993)(See 37 CFR § 1.6(d)). The CM1 Fax Center number is either (703) 308-4242 or (703)305-3014.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to:

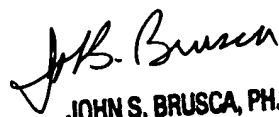
Shubo "Joe" Zhou, Ph.D., whose telephone number is (703) 605-1158. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, Ph.D., can be reached on (703) 308-4028.

Any inquiry of a general nature or relating to the status of this application should be directed to Patent Analyst Tina Plunkett whose telephone number is (703)-305-3524, or to the Technical Center receptionist whose telephone number is (703) 308-0196.

S. "Joe" Zhou, Ph.D. 

Patent Examiner


JOHN S. BRUSCA, PH.D.
PRIMARY EXAMINER